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IN THE

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1936.

No. 765

THE MANTLE LAMP COMPANY OF AMERICA,
Petitioner,

vs.

ALUMINUM PRODUCTS COMPANY,
Respondent.

PETITIONER'S REPLY BRIEF.

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TABLE OF CONTENTS.

PAGE

I. The use of the bond and inner container by petitioner in its commercial jug 1

II. The Blair patent is neither invalid for want of novelty, nor for lack of invention 3

III. Decision of the Circuit Court of Appeals for the Sixth Circuit 4

IV. The Heath, Clisbee and Fox patents fail to show lack of invention in Blair 5

The arts of shock and heat-insulation differ 6

The bond 6

V. Claims in suit of the type of Claim 1 are not invalid for want of invention over the Steel patent, No. 1,067,072 7

VI. The claims in suit of the Blair patent typified by Claim 9 are not invalid in view of LeSieur patent, No. 1,119,968 9

VII. The testimony of Terry and Brainard is material because it negatives the assertion of the Seventh Circuit Court of Appeals and of respondent that only mechanical skill was required to assemble the Blair structure 10

The testimony of Amerine, Asbell and Wright 11

PAGE

VIII. The Court of Appeals for the Seventh Circuit wrongfully labeled Blair's contribution as being the result of mechanical skill 12

IX. The disclosure of the Blair patent is sufficient and complete 12

X. Commercial success of petitioner's jug was due to the Blair invention 13

XI. Respondent's jug clearly infringes the Blair patent 14

XII. Respondent's allegation that prior invention is shown in the prior patents to Davis & Sunderlin Patent No. 1,333,795 and Simonson & Blair No. 1,497,764 is not supported by the evidence 15

XIII. Disclaimers 16

Conclusion 16

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The patent in suit while disclosing a very simple structure, relates to one that has gone into very general use. Its mere simplicity therefore should not be considered as an argument against invention, when utility is considered.

I.

The use of the bond and inner container by petitioner in its commercial jug.

(Respondent's Brief, pp. 11-13)

The heading under point I of Respondent's brief that "The bond and inner container of the Blair patent were

never used by Petitioner in Its Jugs" is contrary to the evidence (R. 80).

The Blair patent is not limited to a particular form of bond. The patentee describes a "preferred" bond composed of shellac (R. 344, l. 72-76) which is the subject of a separate patent to Simonson & Blair, No. 1309967 (R. 413). The patentee says in his patent that he prefers to use the adherent bond described, but the disclosure of the patent is not so limited and is broad enough to include any bond either a mechanical or an adherent bond. An examination of the drawing (Fig. 2, R. 342) shows the bond having interlocking features with the screw threads on the inner side of the neck of the container and forming a wedge with the slightly outwardly tapered neck of the container (R. 80, 72). The bond as employed in the patent has threefold aspects, instead of two as respondent suggests: It is an adherent bond, a mechanical bond and a seal.

The respondent's bond is an adherent bond. It is composed of sulphur, placed in situ when in a molten state, where on cooling it crystallizes and expands, causing mechanical pressure and the molten material likewise tends to flow into the pores of its contacting material (R. 189). Respondent's bond is obviously both an adherent and a mechanical bond (R. 30). It is likewise a water excluding seal (R. 189).

There is no suggestion in the evidence to warrant respondent's argument that the "preferred" bond described in the Blair patent was insufficient to support petitioner's container pendently in the jacket. Petitioner in its present commercial jug, to meet infringing competition, is using a cheaper, although equally effective, substance as its bond (R. 80). For a like reason, petitioner's present jug has an earthenware container. The Blair patent covers "vitreous"

and "frangible" containers. Respondent's jug possesses both those characteristics (R. 30). Petitioner has not departed from the disclosures of its patent in its present jug (R. 80).

II.

The Blair patent is neither invalid for want of novelty, nor for lack of invention.

(Respondent's Brief, pp. 13-15)

The very general argument of respondent that the art has used exactly the same construction for insulating against shock and heat or cold, and that a container properly insulated against shock is inherently an efficient heat-insulated receptacle, is fallacious. The art does disclose many heat insulated receptacles, but except those that are vacuum insulated, they are inefficient and never appeared in commerce. This is explained by the witness, Terry, a manufacturer, that the only heat-insulated receptacles on the market from 1908 to 1918 were vacuum insulated (R. 205).

The patents discussed on pages 390 to 406 except the Steel patent (later discussed) all deal with receptacles in which the inner container is made of metal and deal not at all with receptacles wherein frangible or vitreous containers are used. The solution to Blair's problem cannot be said to be found in any of these references.

The argument that "it has been the practice of the art in these shipping containers, and in the heat-insulated receptacles, to *prevent any metallic contact* between the inner container and the outer jacket" is not supported by the structures to which respondent refers. Not a single one of those patents makes any suggestion that the effi-

ciency of the container as a heat-insulator will be increased by the employment of a vitreous or frangible container supported only at the neck by a bonding seal of non-conducting material.

In considering vacuum bottles, attention is directed to the fact that the jacket adds *nothing* to the efficiency of the receptacle as a heat-insulator. If the jacket is removed the double-walled vessel with the vacuum therebetween is still as efficient as before. That is not true with the Blair Jug.

III.

Decision of the Circuit Court of Appeals for the Sixth Circuit.

(Respondent's Brief, pp. 15-16)

The Circuit Court of Appeals for the Sixth Circuit instead of having difficulty in reading into Claim 1 of the Blair patent, the insulating and moisture excluding functions as respondent suggests, properly interpreted it with the aid of the specification, as it says (R. 225, 226).

The Blair patent refers to the desirability of having poor heat-conducting properties for the material between the walls of the jacket and container (R. 344, lines 27 to 30). The efficiency of that material as a non-conductor is impaired if allowed to become moist (R. 31).

The Circuit Court of Appeals for the Sixth Circuit points out clearly that the patent describes the bond to be employed as being of low heat-conductivity (R. 343, lines 60-61, 65-70). The elements of the accused structure have no functional difference from the corresponding elements disclosed in the patent (R. 32). Hence it is clear that properties other than adherency are claimed for the bond of

the patent, and that the accused bond meets those requirements and infringes. Certain of the claims, for instance 17 and 18, specifically refer to the moisture excluding features of the bond.

IV.

The Heath, Clisbee and Fox patents fail to show lack of invention in Blair.

(Respondent's Brief, pp. 16-18)

Respondent argues that "moisture proof seals are common in the art" and refers to plaster of paris. The evidence is however that plaster of paris is porous (R. 174), and that it crumbled and fell away (R. 61) in a similar structure (R. 374).

The erroneous argument is advanced by respondent that "there is a mechanical interlock or bond which suspends the inner container within the outer jacket at the neck" in the disclosure of the Heath patent (R. 356). *There is neither mechanical interlock, nor a bond of any kind in that disclosure.* In fact the bottle enclosed only to prevent breakage in shipping either rests upon the packing material at the bottom or else hangs loosely by the lip on the neck of the bottle (R. 176).

Plaster of paris as employed in the Fox patent (R. 366) is not a seal as respondent argues. The evidence is that the function of the plug of paster of paris there shown is just contrary to that of a bond. It serves merely as a centering element, is porous and because of its shape and the absence of interlocking means would readily cleave from the box, the carboy, or both (R. 173, 174).

The art relied upon by respondent is too old. Its age alone persuasively indicates that it did not teach anyone how to construct an efficient heat-insulated receptacle without employing a vacuum.

The arts of shock and heat-insulation differ.

(Respondent's Brief, pp. 18, 19)

Respondent's argument that the arts of heat-insulating and the prevention of breakage in transit are identical, is obviously untenable.

Shock insulated receptacles may incidentally or inherently have had *some* heat-insulating qualities, but the disclosures of patents relating to shock-insulators, unless employing the elements disclosed in the patent in suit are valueless to inventors in this art. Of course, it is true that elements in many combination patents are common to several arts, but that does not detract from novelty nor invention in a new combination.

The patent to Lodo & Gassend (R. 473-475) does not employ any bond or seal and is non-pertinent.

The Bond.

(Respondent's Brief, pp. 19-23)

The bond in the patent in suit, functions as a seal, as disclosed in the patent. It is also relatively a non-conductor, a bonding element and a seal. It is claimed as a seal (R. 345, 346, Claims 3, 7, 17 and 18). Its function as a seal is clearly pointed out as "a seal to prevent moisture from reaching said insulating material" (Claims 17 and 18). Respondent is therefore in error when it now suggests

that the sealing quality of the bond is an afterthought for which petitioner is now grasping. The sealing qualities were discussed when the application for the patent was being prosecuted before the Patent Office (R. 278, 279).

Respondent's position in respect to plaster of paris alone, has always been that it is porous, therefore not a seal (R. 278, 174), and because of its tendency to cleave from smooth surfaces, crumbles and will not alone serve as an efficient bond. (It would not support the light vacuum bottle disclosed in the Altenberg Patent (R. 61, 374). This is likewise true of its use in the Lyman vacuum bottle patent (R. 378).

However, when plaster of paris is compounded with other substances (cement, white lead or varnish), as employed by the Macomb Mfg. Co., it becomes both a bond and a seal.

In spite of respondent's argument the evidence shows (R. 176) and the Heath Patent (R. 356) makes it obvious that no bond was there employed or suggested.

The patent in suit refers to a substance which the patentee "preferred" to use as a bond, but Blair's combination is not limited to the use of this preferred bonding material.

V.

Claims in suit of the type of Claim 1 are not invalid for want of invention over the Steel patent, No. 1,067,072 (R. 390).

(Respondent's Brief, pp. 23, 24)

The Steel "vacuum-insulated metal milk can" (R. 390), comprises an "inner receptacle b" "preferably of glass, china, or other analogous substance," said inner receptacle

"being shouldered and provided with an exteriorly screw-threaded neck," 28, screwing into the interiorly-threaded neck of the outer casing, which casing is the protective metal jacket designated as "an outer receptacle a." Steel's specification does not describe, nor does the drawing show means, such as the claims in suit prescribe, for "limiting oscillation" of the "inner receptacle" (container) b; also, neither said specification nor said drawing reveals any physical element such as plaintiff's "comminuted substance 31" which fills "the space between the jacket 1" and "the container 11," to thereby "improve the insulation" of the container b. The invention of Blair, in suit, as disclosed in his specification and claims, comprehending, as it does, "A heat-insulated vessel of the non-vacuum type having an outer jacket of non-frangible material, an inner container of frangible material, said inner container being bonded to and pendently supported from said jacket, and heat-insulating and shock-absorbing means surrounding said container for limiting oscillations of said container while permitting expansion thereof by changes of temperature" (Claim 1 of the Blair patent), thus includes means which perform two functions, namely, insulation of the protective jacket 1 from the container 11, and the limiting of oscillations of said container which, if unrestrained, would create excessive and fracturing strains in the frangible neck of the container, and even in the bond which joins these elements. The absence of such an element in Steel's device leaves it subject to breaking strains imposed by oscillations of the container b upon the frangible glass screw-threads of that container, and also leaves it devoid of any means, save the vacuum it discloses, for insulating its container b.

Blair created an efficient heat-insulated container which did not require vacuum insulation, and he achieved this result by establishing only one poor path of heat conduc-

tivity, namely, upward through the body of the container. The packing surrounding the jacket, not only limits the amplitude of the oscillations of said container, but prevents the circulation of air within the jacket, thus preventing said air from acting convectively to carry heat from the container to the jacket.

Evidently, no heat-insulating device which depends upon a vacuum for insulation, anticipates a heat-insulating device of the non-vacuum type, and since Blair, without employing a vacuum, produced a heat-insulated receptacle having a higher heat-insulating efficiency than any other device of the non-vacuum type, it is clear that he made a new and patentable invention.

VI.

The claims in suit of the Blair patent typified by Claim 9 are not invalid in view of LeSieur patent, No. 1,119,968.

(Respondent's Brief, pp. 24, 25)

Respondent urges that Claim 9 of the Blair patent reads on the LeSieur patent, but in order to make it do so it has changed the words of the Claim from "a body of heat insulating material" to read "a heat-insulating medium." LeSieur discloses a *vacuum-insulated* can not a non-vacuum receptacle. A vacuum (void) cannot be classified as a "body of material." His can, being of metal, cannot possibly hold the high degree of vacuum requiste to constitute a heat-insulating vacuum (R. 193-195). The patentee furthermore supports his metal (thermally inefficient) container laterally and from the bottom (R. 403, lines, 50-55).

The LeSieur patent does not anticipate Claim 9 of the Blair patent.

VII.

The testimony of Terry and Brainard is material because it negatives the assertion of the Seventh Circuit Court of Appeals and of respondent that only mechanical skill was required to assemble the Blair structure.

(Respondent's Brief, pp. 25-29)

Petitioner's argument that Blair's device was not apparent to the ordinarily skilled mechanic, and that the Circuit Court of Appeals for the Seventh Circuit was in error in so concluding is emphasized and strengthened by the argument now advanced by respondent that what Terry's Company did was the *obvious* thing.

Terry's Company, manufacturers of heat-insulated receptacles (vacuum bottles) employed about 350 or 400 people in the factory, and had an experimental department in charge of an engineer who had three technical men as assistants (R. 65). These technicians, not ordinary mechanics, did not recognize Blair's contribution even with it before them, torn apart for examination (R. 62). (Fox, Heath and Clisbee were also available for them in the art.)

The device they made, if not a failure, was definitely much less efficient (4/7 or 5/8 as efficient as Blair) (R. 62, 63) and even though many of them were sold, their relative inefficiency persuasively indicates that Blair exercised inventive skill.

The force of the argument that the Circuit Court of Appeals for the Seventh Circuit was wrong in ascribing only mechanical skill to Blair thus conclusively appears.

The testimony of Amerine, Asbell and Wright.

(Respondent's Brief, pp. 29-31)

The respondent argues that the evidence of the employees of the Macomb Mfg. Company tends to establish that that company developed a jug employing the structure of Blair without "paying tribute to Blair."

What the evidence does show is that the Blair device was on the market in 1919 (R. 75); that the Macomb Company did not begin to manufacture jugs until 1921 (R. 50); that they made several crude types and finally discontinued all of them and came to the Blair pendent-bond-support type, which had been available on the market all the time (R. 87-95). There is no evidence that after having appropriated the Blair structure that any further changes were necessary.

Respondent in urging that the testimony of Amerine, Asbell and Wright, former employees of the Macomb Mfg. Co. was not before the Sixth Circuit Court of Appeals, entirely overlooks that the entire transcript of record in the *Macomb* case was before the Sixth Circuit Court of Appeals when it wrote its opinion, and it was with respect to that record as well as the record in the *Monarch* case, that it could not agree (R. 224, and footnote) with the decision of the Seventh Circuit.

All of this testimony argues strongly in support of invention in the Blair patent.

VIII.

The Court of Appeals for the Seventh Circuit wrongfully labeled Blair's contribution as being the result of mechanical skill.

(Respondent's Brief, pp. 31, 32)

The respondent's argument that the present record shows that those highly skilled in the art (including Blair) merely followed the prior art, is negatived rather than supported by the testimony. The Circuit Court of Appeals for the Sixth Circuit, while pointing out that the selection of elements from the patents to Fox, Clisbee and Heath was insufficient to warrant a finding of no invention, fortified its opinion by reference to the lack of obviousness of Blair's step appearing from the activities of those skilled in the art. The Sixth Circuit Court of Appeals was likewise right when it said "seldom is there a record of failure by other things and success by the patented means more helpful than this on the question of invention."

The Court of Appeals for the Seventh Circuit has said in substance, that Blair's combination would have occurred to any ordinary mechanic—the record here opposes this surmise with facts.

IX.

The disclosure of the Blair patent is sufficient and complete.

(Respondent's Brief, pp. 32-33)

Respondent's argument that a "mechanical interlock" is employed by petitioner and respondent alike, and that a "mechanical interlock" is not shown in the Blair patent

fails to convince because its strength lies in its avoidance of the word "bond." The bond employed by respondent and which it prefers to call "mechanical interlock," is obviously a bond and a seal. The evidence is convincing that it is both. Only avoidance of the use of the word "bond" and its inherent concept gives color to respondent's argument. The patentee was careful to avoid limitation to the "tenacious, adherent bond" to which respondent would now like to restrict it, and there is no reason why it should be so restricted.

X.

Commercial success of petitioner's jug was due to the Blair invention.

(Respondent's Brief, pp. 33-36)

The answer to respondent's urge that judicious advertising, rather than merit, is responsible for the success of respondent's jug, is probably best answered by the evidence that one salesman's sales the first two or three days with the petitioner's structure in Boston alone amounted to close to $10,000.00 (R. 75). Infringers have forced retail price down from $12.50 to 79 cents each (R. 75). This explains the drop in sales of petitioner attributed by respondent to decreased advertising.

It is very significant that this record discloses no sales of non-vacuum heat-insulated receptacles that do not now employ the Blair structure.

XI.

Respondent's jug clearly infringes the Blair patent.

(Respondent's Brief, pp. 36-37)

The inference to be drawn from respondent's argument is that the Blair patent contemplates that its pendent container will oscillate or sway in a pendulous manner, but that respondent's container is held absolutely rigid. The distinction sought to be drawn is not warranted by the facts. It is a law of physics, and one as well of common knowledge, that when a large body supported only at its upper end, is subjected to external shocks, that a *tendency* to oscillate is set up in the body (R. 37). The amplitude of this tendency is restricted, so as to decrease the probability of fracture of the union at the necks, by the density of the packing of the insulating material. It is aptly described in the patent (R. 344, lines 30-33). Respondent's jug functions in the same manner.

The effort to avoid infringement by respondent because it now says the inwardly extending flange at the upper extremity of the neck of its jacket contacts the container is far fetched. The patent describes a similarly positioned flange (R. 342, element 6). Its function is two-fold, it assists in preventing moisture entering the space between the jacket and container and facilitates the assembly of the parts (R. 79).

Attention is directed to how expertly respondent fences to avoid calling its bond by that name. It cleverly calls it a mechanical interlock or a mechanical interlocking tie.

XII.

Respondent's allegation that prior invention is shown in the prior patents to Davis & Sunderlin Patent No. 1,333,795 (R. 420) and Simonson & Blair No. 1,497,764 (R. 452) is not supported by the evidence.

(Respondent's Brief, pp. 38-40)

In directing attention to the claims of the Simonson & Blair patent No. 1,497,764 (R. 452), respondent asserts that some of its claims read on the Blair disclosure.

That patent relates to a *vacuum* bottle which the inventors sought to construct with two heavy glass walls to overcome the frailty of the thin walls commonly employed. It is an entirely different structure, and if read in the light of their respective specifications, the two patents cannot possibly be confused.

The Simonson & Blair invention, although patent application was filed earlier, was actually subsequent to the Blair invention (R. 206, 207, 210).

The patent to Davis & Sunderlin covers merely a yielding shock absorbing diaphragm added to the Blair device for army use (R. 210-212, 199, 279). It does not claim the Blair Structure (R. 421).

In addition to the testimony of Davis (one of the joint inventors), there is the evidence of Simonson and Johnson as to the sequence of these inventions and the very logical explanations of the order of their filing, and the file wrapper of the patent in suit (R. 279) contains the affidavit made in 1920 by Blair under Rule 75 of the Patent Office that his invention antedated the others. This evidence stands without contradiction and is convincing.

XIII.

Disclaimers.

(Respondent's Brief, pp. 40-45)

Petitioner's main brief has so clearly pointed out the inapplicability of the Disclaimer Statutes under the facts in this cause, that a reargument thereof is omitted.

CONCLUSION.

We again submit that the opinion of the Sixth Circuit Court of Appeals is sound and that the relief here asked should be granted.

Respectfully submitted,

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